

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-79 (Canceled).

Claim 80 (Previously Presented): A lubricant composition containing a main amount of a liquid, a semisolid, or a solid lubricant and an amount, having detergent activity, of at least one Mannich adduct prepared by

a) alkylation of a phenol with a highly reactive polyisobutene having a number average molecular weight of less than 1000 and a polydispersity of less than 3.0 at below about 50°C in the presence of an alkylation catalyst;

b) reaction of the reaction product from a) with

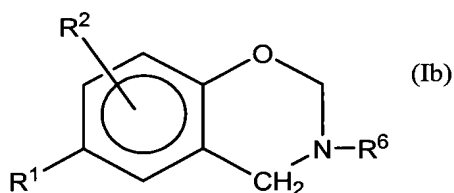
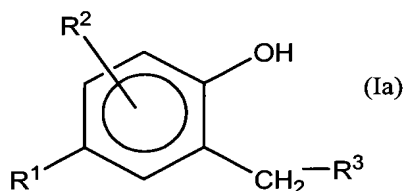
b1) an aldehyde chosen from formaldehyde, an oligomer of formaldehyde, and a polymer of formaldehyde, and

b2) at least one amine which has at least one primary or at least one secondary amino function,

wherein the phenol is 2-methyl phenol and the amine is an n-butylamine.

Claim 81 (Canceled).

Claim 82 (Currently Amended): A lubricant composition containing a main amount of a liquid, a semisolid, or a solid lubricant and an amount, having detergent activity, of at least one adduct comprising at least one compound of the formula Ia and Ib,



where

$R^1$  is a terminally bonded polyisobutenyl radical,

$R^2$  is H,  $C_1$ - to  $C_{20}$ -alkyl,  $C_1$ - to  $C_{20}$ -alkoxy, hydroxyl, a polyalkylenyl radical or  $CH_2NR^4R^5$ , where  $R^4$  and  $R^5$  have the meanings stated below, and

$R^3$  is  $NR^4R^5$ , where  $R^4$  and  $R^5$ , independently of one another, are  $C_1$ - to  $C_{20}$ -alkyl, and

$R^6$  is a radical  $R^4$  or  $R^5$  other than H,

wherein the adduct includes a ~~2-methyl-phenol-unit~~ phenolic unit having a methyl group at an ortho position to the hydroxyl group and an n-butylamine unit.

Claim 83-87 (Canceled).

Claim 88 (Previously Presented): The lubricant composition according to Claim 80, wherein the amine is di-n-butylamine.

Claim 89 (Currently Amended): The lubricant composition according to Claim ~~[[82]]~~ 80, wherein the n-butylamine is a primary amine.

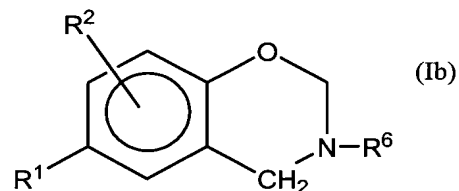
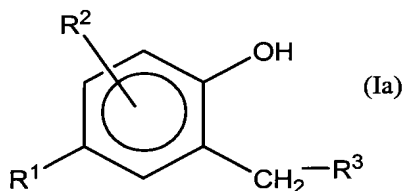
Claims 90-92 (Canceled).

Claim 93 (New): A process for the preparation of polyisobutenylphenol-containing Mannich adducts, comprising:

- a) alkylating a phenol with a highly reactive polyisobutene having a vinylidene double bond content of more than 70 mol%, a number average molecular weight of from 300 to 850, and a polydispersity of less than 3.0 at below about 50°C, wherein the alkylating is carried out in the presence of an alkylation catalyst to form a reaction product; and
- b) reacting the reaction product from a) with
  - b1) at least one aldehyde selected from the group consisting of formaldehyde, an oligomer of formaldehyde and a polymer of formaldehyde, and
  - b2) at least one amine having at least one primary or at least one secondary amino function.

Claim 94 (New): The process as claimed in claim 93, wherein the amine reacted with the reaction product is at least one selected from the group consisting of 3-(dimethylamino)-n-propylamine, di(3-dimethylamino)-n-propylamine, dimethylamine, diethylamine and morpholine.

Claim 95 (New): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct mixture comprising at least 40 mol% of at least one compound selected from the group consisting of formula (Ia) and (Ib),



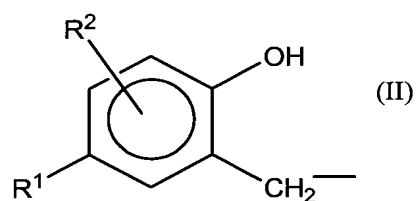
wherein

$R^1$  is a terminally bonded polyisobutenyl radical,

$R^2$  is H,  $C_1$ - to  $C_{20}$ -alkyl,  $C_1$ - to  $C_{20}$ -alkoxy, hydroxyl, a polyalkylenyl radical or  $CH_2NR^4R^5$ , where  $R^4$  and  $R^5$  have the meanings stated below, and

$R^3$  is  $NR^4R^5$ , where  $R^4$  and  $R^5$ , independently of one another, are selected from H,  $C_1$ - to  $C_{20}$ -alkyl,  $C_3$ - to  $C_8$ -cycloalkyl and  $C_1$ - to  $C_{20}$ -alkoxy radicals which may be interrupted and/or substituted by heteroatoms selected from N and O, and phenol radicals of the formula

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where  $R^1$  and  $R^2$  are as defined above;

with the proviso that  $R^4$  and  $R^5$  are not simultaneously H or phenol radicals of the formula II; or  $R^4$  and  $R^5$ , together with the N atom to which they are bonded, from a 5-, 6- or 7-membered cyclic structure which has one or two heteroatoms selected from the group consisting of N and O and may be substituted by one, two or three  $C_1$ - to  $C_6$ -alkyl radicals; and

$R^6$  is a radical  $R^4$  or  $R^5$  other than H.

Claim 96 (New): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct having a polydispersity of from 1.1 to 3.5.

Claim 97 (New); The process as claimed in claim 96, further comprising:

fractionating the reaction mixture from b) by column chromatography over an acidic stationary phase by multistage elution with

- at least one hydrocarbon, and then
- at least one basic alcohol/water mixture.

Claim 98 (New): The process as claimed in claim 97, wherein the basic alcohol/water mixture comprises:

- a) from 75-99.5% by weight of at least one C<sub>2</sub>- to C<sub>4</sub>-alcohol,
- b) from 0.4-24.4% by weight of water, and
- c) from 0.1-15% by weight of at least one amine which is volatile at room temperature.

Claim 99 (New): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct mixture comprising up to 20 mol% of one or more polyisobutenyl phenols formed by the alkylating and which are not reacted in the reacting.

Claim 100 (New): The process as claimed in claim 93, wherein the reacting is carried out to form an adduct mixture comprising from 1-15 mol% of one or more polyisobutenyl phenols formed by the alkylating and which are not reacted in the reacting.

Claim 101 (New): A Mannich adduct obtained by the process as claimed in claim 93.

Claim 102 (New): A Mannich adduct obtained by the process as claimed in claim 95, wherein the Mannich adduct comprises at least 40 mol% of one or more compounds of formula Ia and Ib.

Claim 103 (New): A fuel and/or lubricant composition comprising a detergent effective amount of the Mannich adduct claimed in claim 101.

Claim 104 (New): An additive concentrate, comprising:  
one or more conventional additive components, and at least one Mannich adduct as claimed in claim 101 in an amount of from 0.1 to 99% by weight.

Claim 105 (New): An additive concentrate, comprising:  
one or more conventional additive components, and  
at least one Mannich adduct claimed in claim 101 in an amount of from 0.5 to 80% by weight.

Claim 106 (New): A fuel composition, comprising:  
a major amount of at least one liquid hydrocarbon fuel, and  
at least one adduct as claimed in claim 101 in a detergent active effective amount.

Claim 107 (New): A lubricant composition, comprising:  
a major amount of at least one of a liquid lubricant, a semisolid lubricant and a solid lubricant, and  
at least one adduct as claimed in claim 101 in a detergent active effective amount.

Claim 108 (New): A gasoline or diesel fuel, comprising:  
the fuel composition claimed in claim 106.